


AMENDMENT

UNMARKED VERSION

In the Title:

Please replace the title as follows:

 USER INTERFACE FOR A FINANCIAL ADVISORY SYSTEM THAT ALLOWS AN END USER TO
INTERACTIVELY EXPLORE TRADEOFFS AMONG INPUT DECISIONS

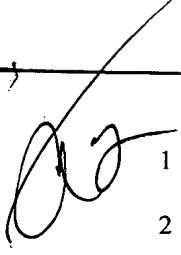
In the Claims:

Presented below are the claims, as amended, in a clean, unmarked format with changes entered and not marked. For the Examiner's convenience, all pending claims are presented herein. Claims that remain unchanged by this amendment are prefixed with "(Unchanged)."

Please amend claims 1, 7, 16, 18, 20, 23, 26, 28, 30 and 32, without prejudice, as follows.

Please cancel claims 14 and 15, without prejudice.

Please add new claims 34-78.

-  1. (Amended) A method comprising:
- 2 displaying a set of one or more input objects, the input objects to receive
 - 3 one or more input decisions including an indication of a target retirement age, an
 - 4 indication of a target level of investment risk that is constrained to be within a
 - 5 feasible set of risk that is attainable by a particular investor via a set of financial
 - 6 products that are available to the particular investor for investment, and an
 - 7 indication of a retirement income goal;
 - 8 displaying a set of one or more output values, the set of output values
 - 9 including an indication of the probability of achieving the retirement income goal
 - 10 and an indication of the most likely retirement income in current dollars based

upon the one or more input decisions and a recommended set of financial products selected from the set of financial products that are available to the particular investor for investment;

receiving an updated input decision via one or more of the input objects;

determining one or more new output values based upon the updated input decision; and

refreshing the set of one or more output values to reflect the one or more new output values.

2. (Unchanged) The method of claim 1, wherein a subset of the one or more input objects and a subset of the one or more output values are displayed concurrently on the same screen.

3. (Unchanged) The method of claim 1, wherein the target retirement age is constrained to be feasible.

4. (Unchanged) The method of claim 1, further comprising displaying the recommended set of financial products, the recommended set of financial products conditional on the one or more input decisions.

5. (Unchanged) The method of claim 4, further comprising displaying a recommended allocation of wealth among those of the financial products in the recommended set of financial products.

6. (Unchanged) The method of claim 5, wherein the recommended allocation of wealth is conveyed graphically.

7. (Amended) A method of providing an indication to a user of a probability of achieving a financial goal, the method comprising:

receiving a retirement income goal from the user;

4 receiving one or more input decisions from the user, including an
5 indication of a target retirement age and an indication of a target level of
6 investment risk, upon which a probability distribution is dependent, the
7 probability distribution representing a set of possible future portfolio values based
8 upon the one or more input decisions, the target level of investment risk being
9 constrained to be within a feasible set of risk that is attainable by a particular
10 investor via a set of financial products that are available to the particular investor
11 for investment;

12 determining the probability of achieving the retirement income goal; and
13 displaying the probability of achieving the retirement income goal to the
14 user.

15 8. (Unchanged) The method of claim 7, wherein the target level of risk is received
16 via a graphical input mechanism.

1 9. (Unchanged) The method of claim 7, further comprising displaying a
2 recommended set of financial products and a recommended allocation of wealth
3 among the financial products in the set of recommended financial products.

1 10. (Unchanged) The method of claim 7, wherein the probability of achieving the
2 retirement income goal is graphically communicated.

1 11. (Unchanged) A method comprising:

2 concurrently displaying

3 input objects in a first portion of a screen, the input objects

4 configured to receive one or more input decisions including level of risk,

5 and

a set of one or more output values in a second portion of the screen, the set of output values including the short-term risk associated with reaching a financial goal; receiving an updated input decision via one of the depicted input objects; determining one or more new output values based upon the updated values; and updating the second portion of the screen to reflect the one or more new output values.

12. (Unchanged) The method of claim 11, wherein the short-term risk comprises an indication of the potential financial loss that might occur with a 5% probability within the next 12 months.

13. (Unchanged) The method of claim 11, wherein the one or more output values are graphically communicated.

[14 - 15 Cancelled]

16. (Amended) A method of presenting a recommended allocation of wealth among an available set of financial products that are available to a particular investor for investment, the method comprising:

determining a recommended allocation of wealth among one or more financial products of the set of available financial products based upon one or more decision inputs, including an indication of a target level of investment risk; and

depicting the recommended allocation of wealth among the one or more financial products of the set of available financial products.

17. (Unchanged) The method of claim 16, wherein the recommended allocation of wealth is graphically depicted.

1 18. (Amended) A method comprising:
2 displaying one or more input objects in a first portion of a first screen, the
3 input objects configured to receive one or more input decisions including a
4 financial goal, from which a recommendation is determined, the recommendation
5 including a recommended allocation of wealth among a set of available financial
6 products that are available to a particular investor for investment;

7 displaying a set of output values in a second portion of the first screen, the
8 set of output values including a probability of achieving the financial goal based
9 upon the recommendation; and

10 graphically depicting the recommended allocation of wealth among the set
11 of available financial products in a second screen.

1 19. (Unchanged) The method of claim 18, wherein the one or more input decisions
2 include an indication of a target retirement age.

1 20. (Amended) An apparatus comprising:
2 means for displaying a set of one or more input objects, the input objects
3 to receive one or more input decisions including an indication of a target
4 retirement age, an indication of a target level of investment risk that is constrained
5 to be within a feasible set of risk that is attainable to a particular investor via a set
6 of financial products that are available to the particular investor for investment,
7 and an indication of a retirement income goal;

8 means for displaying a set of one or more output values, the set of output
9 values including an indication of the probability of achieving the retirement
10 income goal and an indication of the most likely retirement income in current
11 dollars based upon one or more input decisions and a recommended set of

12 financial products selected from the set of financial products that are available to
13 the particular investor for investment;

14 means for receiving an updated input decision via one or more of the input
15 objects;

16 means for determining one or more new output values based upon the
17 updated input decision; and

18 means for refreshing the set of one or more output values to reflect the one
19 or more new output values.

1 21. (Unchanged) The apparatus of claim 20, further comprising a means for
2 displaying the recommended set of financial products, the recommended set of
3 financial products conditional on the one or more input decisions.

1 22. (Unchanged) The apparatus of claim 21, wherein the recommended allocation of
2 wealth is conveyed graphically.

1 23. (Amended) A method comprising the steps of:

2 a step for displaying a set of one or more input objects, the input objects to
3 receive one or more input decisions including an indication of a target retirement
4 age, an indication of a target level of investment risk that is constrained to be
5 within a feasible set of risk that is attainable by a particular investor via a set of
6 financial products that are available to the particular investor for investment, and
7 an indication of a retirement income goal;

8 a step for displaying a set of one or more output values, the set of output
9 values including an indication of the probability of achieving the retirement
10 income goal and an indication of the most likely retirement income in current
11 dollars based upon the one or more input decisions and a recommended set of

12 financial products selected from the set of financial products that are available to
13 the particular investor for investment;

14 a step for receiving an updated input decision via one or more of the input
15 objects;

16 a step for determining one or more new output values based upon the
17 updated input decision; and

18 a step for refreshing the set of one or more output values to reflect the one
19 or more new output values.

1 24. (Unchanged) The method of claim 23, wherein the target retirement age is
2 constrained to be feasible.

1 25. (Unchanged) The method of 24, wherein the target level of investment risk is
2 received via a graphical input mechanism.

1 26. (Amended) An apparatus comprising:
2 means for displaying one or more input objects in a first portion of a first
3 screen, the input objects configured to receive one or more input decisions
4 including a financial goal, from which a recommendation is determined, the
5 recommendation including a recommended allocation of wealth among a set of
6 available financial products that are available to a particular investor for
7 investment;

8 means for displaying a set of output values in a second portion of the first
9 screen, the set of output values including a probability of achieving the financial
10 goal based upon the recommendation; and

11 means for graphically depicting the recommended allocation of wealth
12 among the set of available financial products in a second screen.

1 27. (Unchanged) The apparatus of claim 26, wherein the one or more input decisions
2 includes an indication of a target retirement age.

1 28. (Amended) A method comprising the steps of:
2 a step for displaying one or more input objects in a first portion of a first
3 screen, the input objects configured to receive one or more input decisions
4 including a financial goal, from which a recommendation is determined, the
5 recommendation including a recommended allocation of wealth among a set of
6 available financial products that are available to a particular investor for
7 investment;

8 a step for displaying a set of output values in a second portion of the first
9 screen, the set of output values including a probability of achieving a financial
10 goal based upon the recommendation; and

11 a step for graphically depicting the recommended allocation of wealth
12 among the set of available products in a second screen.

1 29. (Unchanged) The method of claim 28 wherein the one or more input objects
2 includes a target level of investment risk.

1 30. (Amended) A server comprising:

2 a processor; and

3 a memory coupled with the processor to store a financial advisory system;

4 the processor to send information to a client machine to display on the
5 client machine:

6 one or more input objects in a first portion of a first screen, the

7 input objects configured to receive one or more input decisions including a

8 financial goal, from which a recommendation is determined, the

9 recommendation including a recommended allocation of wealth among a

set of available financial products that are available to a particular investor for investment;

a set of output values in a second portion of the first screen, the set of output values including a probability of achieving a financial goal based upon the recommendation; and

a graphical depiction of the recommended allocation of wealth among the set of available financial products in a second screen.

31. (Unchanged) The server of claim 30, wherein the one or more input objects includes an indication of a target level of investment risk, and an indication of a retirement income goal.

32. (Amended) A method comprising:

concurrently displaying

a set of one or more input objects, the input objects to receive one or more input decisions including an indication of a target retirement age, an indication of a retirement income goal, and an indication of a target level of investment risk that is constrained to be within a feasible set of risk that is attainable by a particular investor via a set of financial products that are available to the particular investor for investment; and

a set of one or more output values, the set of output values including the most likely value at retirement of a recommended portfolio of one or more financial products selected from the set of financial products that are available to the particular investor for investment; receiving an updated input decision via one or more of the input objects; determining one or more new output values based upon the updated input decision; and

16 refreshing the set of one or more output values to reflect the one or more
17 new output values.

33. (Unchanged) The method of claim 32, wherein the target retirement age is
2 constrained to be feasible.

1 34. (New) A method comprising:

2 receiving an indication of a retirement income goal for a particular
3 investor;

4 displaying a set of one or more input objects within a user interface screen,
5 the input objects to receive one or more input decisions including an indication of
6 a target retirement age for the particular investor and an indication of a target
7 level of investment risk for the particular investor that is constrained to be within
8 a feasible set of risk that is attainable by the particular investor via a set of
9 financial products that are available to the particular investor for investment; and

10 displaying a set of one or more output values within the user interface
11 screen, the set of output values including an indication of the probability of
12 achieving the retirement income goal and an indication of the most likely
13 retirement income in current dollars based upon the retirement income goal, the
14 one or more input decisions, and a recommended allocation of wealth among one
15 or more financial products of the set of financial products that are available to the
16 particular investor for investment.

1 35. (New) The method of claim 34, further comprising displaying a representation of
2 the recommended allocation of wealth by graphically depicting relative
3 allocations of wealth among those of the financial products of the set of financial
4 products included in a recommended portfolio.

1 36. (New) The method of claim 34, further comprising identifying a relationship
2 between future returns of each financial product of the set of financial products
3 and future returns of combinations of one or more factor asset classes of a set of
4 factor asset classes by determining each financial product's effective asset mix
5 with respect to the set of factor asset classes.

1 37. (New) The method of claim 36, wherein said determining each financial
2 product's effective asset mix with respect to the set of factor asset classes
3 comprises performing returns-based style analysis.

1 38. (New) The method of claim 36, wherein said determining each financial
2 product's effective asset mix with respect to the set of factor asset classes
3 comprises surveying the underlying assets held in the financial product.

1 39. (New) The method of claim 36, wherein said determining each financial
2 product's effective asset mix with respect to the set of factor asset classes
3 comprises obtaining exposure information based on a target benchmark associated
4 with the financial product.

1 40. (New) The method of claim 36, further comprising determining expected returns
2 and volatility of returns for each of a plurality of efficient portfolios based upon
3 the relationship and the one or more input decisions, each of the plurality of
4 efficient portfolios including a combination of one or more of the financial
5 products from the set of financial products.

1 41. (New) The method of claim 40, further comprising selecting the recommended
2 portfolio from the plurality of efficient portfolios by identifying an efficient
3 portfolio of the plurality of efficient portfolios that maximizes an expected utility
4 of wealth for the particular investor.

1 42. (New) The method of claim 36, further comprising:

2 forecasting returns associated with each core asset class of a set of core
3 asset classes by generating core asset class scenarios based upon future scenarios
4 of one or more economic factors with an equilibrium econometric model; and

5 forecasting returns associated with each factor asset class of the set of
6 factor asset classes by generating factor model asset scenarios based upon the core
7 asset class scenarios.

1 43. (New) A method comprising:

2 receiving an indication of a financial goal of a particular investor;

3 receiving input decisions that relate to tradeoffs in connection with
4 pursuing the financial goal, the input decisions comprising an indication of a time
5 horizon that is acceptable to the particular investor, an indication of a level of
6 investment risk that is acceptable to the particular investor and that is constrained
7 to be within a feasible set of risk that is attainable by a particular investor via a set
8 of financial products that are available to the particular investor for investment,
9 and an indication of a level of savings that is acceptable to the particular investor;

10 determining a recommended portfolio of one or more financial products
11 from the set of financial products that are available to the particular investor for
12 investment based upon the input decisions;

13 determining the probability of the particular investor achieving the
14 financial goal based upon a probability distribution representing a set of possible
15 future portfolio values of the recommended portfolio upon expiration of the time
16 horizon by evaluating the cumulative probability that meets or exceeds the
17 financial goal; and

18 providing feedback regarding the likelihood of achieving the financial
19 goal in view of the input decisions by displaying an indication of the probability

20 of the particular investor achieving the financial goal in response to receipt of the
21 input decisions.

1 44. (New) The method of claim 43, further comprising displaying a representation of
2 the recommended portfolio by graphically depicting allocations of wealth among
3 those of the financial products of the set of financial products included in the
4 recommended portfolio.

1 45. (New) The method of claim 43, further comprising identifying a relationship
2 between future returns of each financial product of the set of financial products
3 and future returns of combinations of one or more factor asset classes of a set of
4 factor asset classes by determining each financial product's effective asset mix
5 with respect to the set of factor asset classes.

1 46. (New) The method of claim 45, wherein said determining each financial
2 product's effective asset mix with respect to the set of factor asset classes
3 comprises performing returns-based style analysis.

1 47. (New) The method of claim 45, wherein said determining each financial
2 product's effective asset mix with respect to the set of factor asset classes
3 comprises surveying the underlying assets held in the financial product.

1 48. (New) The method of claim 45, wherein said determining each financial
2 product's effective asset mix with respect to the set of factor asset classes
3 comprises obtaining exposure information based on a target benchmark associated
4 with the financial product.

1 49. (New) The method of claim 45, further comprising determining expected returns
2 and volatility of returns for each of a plurality of efficient portfolios based upon
3 the relationship and one or more of the input decisions, each of the plurality of

4 efficient portfolios including a combination of one or more of the financial
5 products from the set of financial products.

1 50. (New) The method of claim 49, wherein said determining a recommended
2 portfolio comprises identifying an efficient portfolio of the plurality of efficient
3 portfolios that maximizes an expected utility of wealth for the particular investor.

1 51. (New) The method of claim 45, further comprising:

2 forecasting returns associated with each core asset class of a set of core
3 asset classes by generating core asset class scenarios based upon future scenarios
4 of one or more economic factors with an equilibrium econometric model; and

5 forecasting returns associated with each factor asset class of the set of
6 factor asset classes by generating factor model asset scenarios based upon the core
7 asset class scenarios.

1 52. (New) A method comprising:

2 receiving an indication of a financial goal of a particular investor; and
3 allowing an end user to interactively explore tradeoffs among time,
4 savings, and risk and their impact on a probability of the particular investor
5 achieving the financial goal by

6 displaying one or more input objects in a first portion of a user
7 interface screen, the one or more input objects being constrained to receive
8 feasible input decisions relating to variables involved in pursuing the
9 financial goal, the input decisions comprising an indication of a time
10 horizon that is acceptable to the particular investor, an indication of a level
11 of investment risk that is acceptable to the particular investor, and an
12 indication of a level of savings that is acceptable to the particular investor;

13 determining a recommended portfolio of one or more financial
14 products from a set of financial products that are available to the particular
15 investor for investment based upon the input decisions; and
16 displaying a set of output values in a second portion of the user
17 interface screen, the set of output values comprising an indication of the
18 probability of the particular investor achieving the financial goal based
19 upon the recommended portfolio and the time horizon.

1 53. (New) The method of claim 52 further comprising displaying a representation of
2 the recommended portfolio by graphically depicting allocations of wealth among
3 those of the financial products of the set of financial products included in the
4 recommended portfolio.

1 54. (New) The method of claim 52, further comprising identifying a relationship
2 between future returns of each financial product of the set of financial products
3 and future returns of combinations of one or more factor asset classes of a set of
4 factor asset classes by determining each financial product's effective asset mix
5 with respect to the set of factor asset classes.

1 55. (New) The method of claim 52, wherein said determining each financial
2 product's effective asset mix with respect to the set of factor asset classes
3 comprises performing returns-based style analysis.

1 56. (New) The method of claim 52, wherein said determining each financial
2 product's effective asset mix with respect to the set of factor asset classes
3 comprises surveying the underlying assets held in the financial product.

1 57. (New) The method of claim 52, wherein said determining each financial
2 product's effective asset mix with respect to the set of factor asset classes

comprises obtaining exposure information based on a target benchmark associated with the financial product.

58. (New) The method of claim 52, further comprising determining expected returns and volatility of returns for each of a plurality of efficient portfolios based upon the relationship and one or more of the input decisions, each of the plurality of efficient portfolios including a combination of one or more of the financial products from the set of financial products.

59. (New) The method of claim 58, wherein said determining a recommended portfolio comprises identifying an efficient portfolio of the plurality of efficient portfolios that maximizes an expected utility of wealth for the particular investor.

60. (New) The method of claim 54, further comprising:

forecasting returns associated with each core asset class of a set of core asset classes by generating core asset class scenarios based upon future scenarios of one or more economic factors with an equilibrium econometric model; and

forecasting returns associated with each factor asset class of the set of factor asset classes by generating factor model asset scenarios based upon the core asset class scenarios.

61. (New) A method comprising:

determining a recommended allocation of wealth among a set of financial products that are available for investment by a particular investor, the set of financial products comprising one or more mutual funds, said determining being based upon (a) a financial goal identified by the particular investor, and (b) input decisions relating to variables involved in pursuing the financial goal, the input decisions comprising an indication of a time horizon that is acceptable to the particular investor, an indication of a level of investment risk that is acceptable to

9 the particular investor, and an indication of a level of savings that is acceptable to
10 the particular investor; and

11 graphically depicting the recommended allocation of wealth among the
12 one or more financial products of the set of available financial products.

1 62. (New) The method of claim 61, further comprising displaying an indication of a
2 probability of the particular investor achieving the financial goal based upon the
3 recommended allocation of wealth and the time horizon.

1 63. (New) The method of claim 61, further comprising identifying a relationship
2 between future returns of each financial product of the set of financial products
3 and future returns of combinations of one or more factor asset classes of a set of
4 factor asset classes by determining each financial product's effective asset mix
5 with respect to the set of factor asset classes.

1 64. (New) The method of claim 61, wherein said determining each financial
2 product's effective asset mix with respect to the set of factor asset classes
3 comprises performing returns-based style analysis.

1 65. (New) The method of claim 61, wherein said determining each financial
2 product's effective asset mix with respect to the set of factor asset classes
3 comprises surveying the underlying assets held in the financial product.

1 66. (New) The method of claim 63, wherein said determining each financial
2 product's effective asset mix with respect to the set of factor asset classes
3 comprises obtaining exposure information based on a target benchmark associated
4 with the financial product.

1 67. (New) The method of claim 63, further comprising determining expected returns
2 and volatility of returns for each of a plurality of efficient portfolios based upon

3 the relationship and the one or more input decisions, each of the plurality of
4 efficient portfolios including a combination of one or more of the financial
5 products from the set of financial products.

1 68. (New) The method of claim 67, further comprising selecting a recommended
2 portfolio from the plurality of efficient portfolios by identifying an efficient
3 portfolio of the plurality of efficient portfolios that maximizes an expected utility
4 of wealth for the particular investor.

1 69. (New) The method of claim 63, further comprising:

2 forecasting returns associated with each core asset class of a set of core
3 asset classes by generating core asset class scenarios based upon future scenarios
4 of one or more economic factors with an equilibrium econometric model; and

5 forecasting returns associated with each factor asset class of the set of
6 factor asset classes by generating factor model asset scenarios based upon the core
7 asset class scenarios.

1 70. (New) A method comprising:

2 identifying a relationship between future returns of each financial product
3 of a set of financial products that are available to a particular investor for
4 investment and future returns of combinations of one or more factor asset classes
5 of a set of factor asset classes by determining each financial product's effective
6 asset mix with respect to the set of factor asset classes;

7 receiving an indication of a financial goal of a particular investor;

8 displaying a set of one or more input objects to receive input decisions
9 relating to variables involved in pursuing the financial goal, the input decisions
10 comprising an indication of a time horizon that is acceptable to the particular
11 investor, an indication of a level of investment risk that is acceptable to the

12 particular investor, and an indication of a level of savings that is acceptable to the
13 particular investor;

14 determining expected returns and volatility of returns for each of a
15 plurality of efficient portfolios based upon the relationship and the input
16 decisions, each of the plurality of efficient portfolios including a combination of
17 one or more of the financial products from the set of financial products;

18 identifying a recommended portfolio of the plurality of efficient portfolios
19 by selecting an efficient portfolio of the plurality of efficient portfolios that
20 maximizes an expected utility of wealth for the particular investor; and

21 displaying a representation of the recommended portfolio by graphically
22 depicting relative allocations of wealth among those of the financial products of
23 the set of financial products included in the recommended portfolio.

71. (New) The method of claim 70, wherein said determining each financial
2 product's effective asset mix with respect to the set of factor asset classes
3 comprises performing returns-based style analysis.

1 72. (New) The method of claim 70, wherein said determining each financial
2 product's effective asset mix with respect to the set of factor asset classes
3 comprises surveying the underlying assets held in the financial product.

1 73. (New) The method of claim 70, wherein said determining each financial
2 product's effective asset mix with respect to the set of factor asset classes
3 comprises obtaining exposure information based on a target benchmark associated
4 with the financial product.

1 74. (New) The method of claim 70, further comprising:

2 forecasting returns associated with each core asset class of a set of core asset
3 classes by generating core asset class scenarios based upon future scenarios of one or
4 more economic factors with an equilibrium econometric model; and

5 forecasting returns associated with each factor asset class of the set of factor asset
6 classes by generating factor model asset scenarios based upon the core asset class
7 scenarios.

1 75. (New) The method of claim 70, wherein the financial goal comprises a retirement
2 income goal.

1 76. (New) The method of claim 75, wherein the indication of the time horizon comprises an
indication of a target retirement age for the particular investor.

1 77. (New) The method of claim 76, wherein the set of financial products that are available to
2 the particular investor for investment comprise those that are available to the particular
3 investor through one or more defined contribution plans.

1 78. (New) A method comprising:

2 a step for identifying a relationship between future returns of each financial
3 product of a set of financial products that are available to a particular investor for
4 investment and future returns of combinations of one or more factor asset classes of a set
5 of factor asset classes by determining each financial product's effective asset mix with
6 respect to the set of factor asset classes;

7 a step for receiving an indication of a financial goal of a particular investor;

8 a step for displaying a set of one or more input objects to receive input decisions
9 relating to variables involved in pursuing the financial goal, the input decisions
10 comprising an indication of a time horizon that is acceptable to the particular investor, an

11 indication of a level of investment risk that is acceptable to the particular investor, and an
12 indication of a level of savings that is acceptable to the particular investor;

13 a step for determining expected returns and volatility of returns for each of a
14 plurality of efficient portfolios based upon the relationship and the input decisions, each
15 of the plurality of efficient portfolios including a combination of one or more of the
16 financial products from the set of financial products;

17 a step for identifying a recommended portfolio of the plurality of efficient
18 portfolios by selecting an efficient portfolio of the plurality of efficient portfolios that
19 maximizes an expected utility of wealth for the particular investor; and

20 a step for displaying a representation of the recommended portfolio by graphically
21 depicting relative allocations of wealth among those of the financial products of the set of
22 financial products included in the recommended portfolio.